



July 20, 2005

[The Case for Private Networks](#) [Cricket Site Completed](#)
[Pink Cliffs Project Gains Support of DES](#) [July UCAN Meeting Highlights](#) [Calendar](#)

The Case for Private Networks

By [Boyd Webb](#), Strategic Network Planner

Recent terrorist attacks in England highlight the fragile nature of peace and security in our time. As the investigation moves forward it becomes clear, to those of us living in the United States, that another attack on American soil is almost an eventuality. In hindsight we can identify similarities between the terrorist attacks against the world trade center on 9/11 and the bombings in London last week. Both incidents were precipitated by ideological extremism. Both incidents generated fear and loathing in the hearts and minds of millions around the world. And both incidents revealed serious deficiencies in public safety communications networks.



Shared public networks, including wireless cellular phone systems, ground to a virtual standstill during and after the bombings in London. Millions of cellular subscribers throughout England discovered the vulnerability of shared commercial networks during an emergency.

Similar outages were reported in New York after the 9/11 attacks leading many to conclude that shared public networks are unsuitable for critical public safety communications. But what about private networks dedicated to public safety communications systems? How did those private networks perform during widespread emergency?

Unfortunately the dedicated public safety networks in both events broke down for some of the same reasons the commercial networks failed. Private networks did, however, provide limited communications throughout both events and were brought into full operational service status much faster.

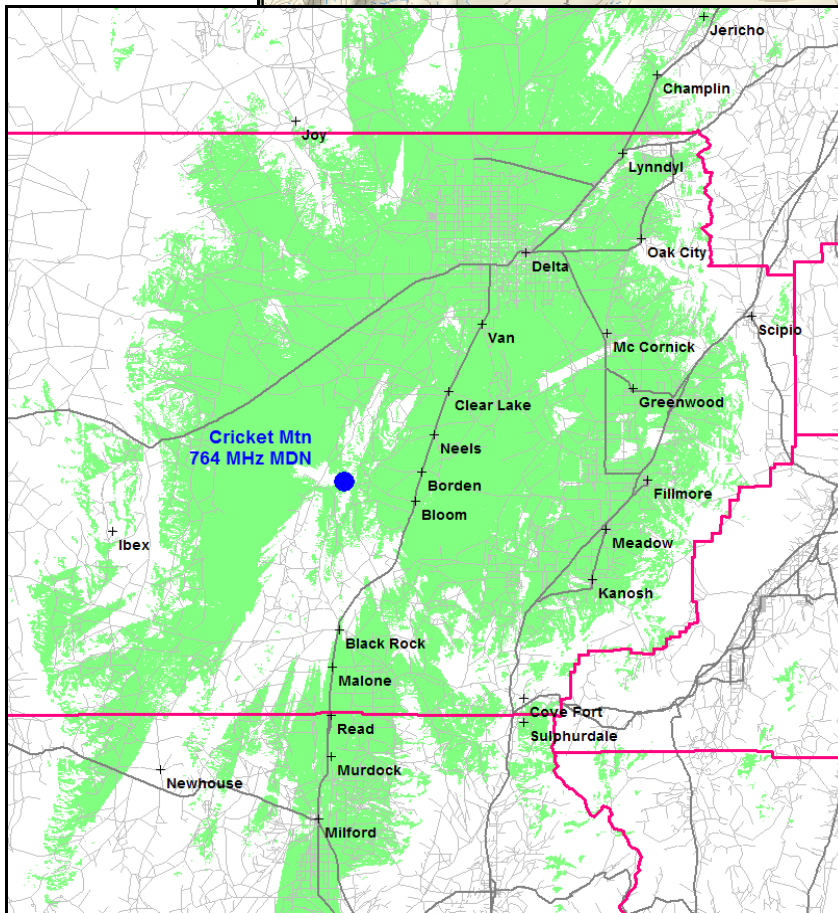
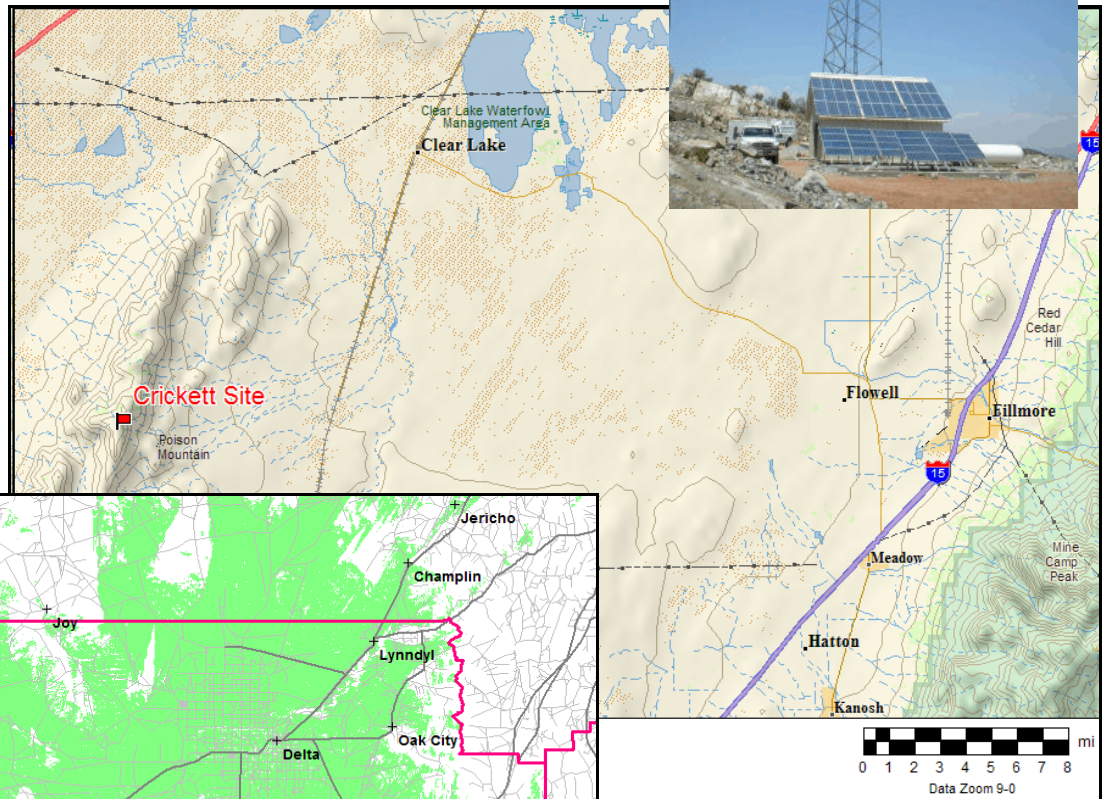
Sometimes the competitive advantages offered by shared network providers look very attractive to the public safety community. The costs associated with building infrastructure, supporting a relatively small number of subscribers, on a private network make the commercial cost alternatives look more appealing. End user equipment offered by cellular companies is also more attractive; usually offering more features for less money. The competitive differences between private public safety networks, and large commercial shared networks, make decisions difficult for public safety administrators.

But if we have learned anything from 9/11, and London, it is that when disaster strikes public safety can not rely on shared public networks for critical communications systems. Whether by the hand of malicious attackers, or by mother nature, public safety must develop reliable private communications networks that can provide essential communications during an emergency. This even if it costs more, and provides less, than whatever can be purchased at the cellular booth in the mall.

Cricket Site Completed

By [Trevor Pollock](#), Radio Engineer, Southwest Region

[Millard County](#) and [State ITS](#) have completed construction and equipment installations at the new Cricket Mountain communications facility, located 34 miles west of Fillmore. Al Higgs, Omar Issa, Allan Orton, and Trevor Pollock completed the equipment installations earlier today. This joint venture between Millard County and State ITS provides not only extended connectivity to the state's microwave network, but increases mobile data coverage to all public safety agencies in the Millard county region (as illustrated in the coverage prediction (below).



Cricket Mobile Data Coverage Simulation

The site was scheduled for completion earlier this spring, but a powerful lightning strike did serious damage to the facility while it was still under construction.

Cricket is powered via 68 high-wattage solar panels, 30KW generator, 1,000 gallons of propane, and enough batteries to make the Energizer bunny melt.

As illustrated in the green coverage map, the anticipated coverage for mobile data is exceptional.

Pink Cliffs Project Gains Support of D.E.S.

By [Omar Issa](#), Radio Engineer, South-Central Region

At the request of the [Kane County Sheriff](#), the [Department of Public Safety, Division of Emergency Services and Homeland Security](#) has identified funding for a new communications site on the Pink Cliffs range of the [Dixie National Forest](#). DPS and Kane County have asked State ITS to manage the request and installation of the communications facility.

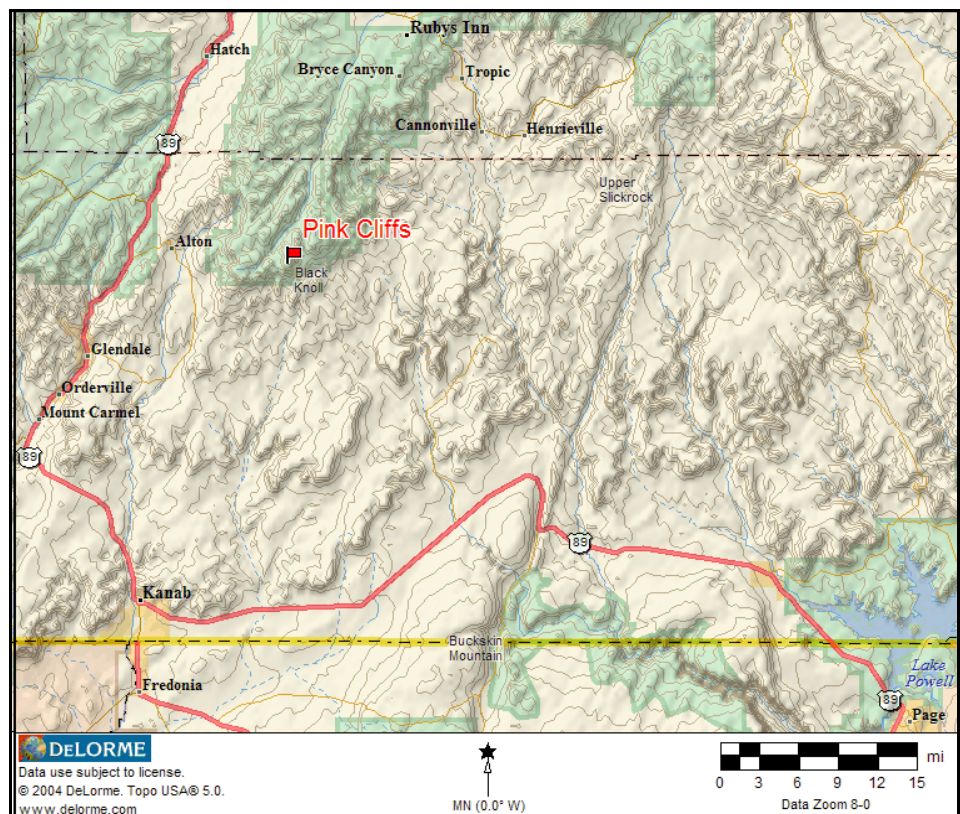
An impressive list of attendees was at a meeting where the required permit request was handed in to the Forest Service. The Sheriffs from Kane and Garfield Counties, some of their deputies, The Kodachrome State Park Ranger, DPS' MIS Director, and several ITS engineers were in attendance.

The intent of the meeting was to impress upon the Forest Services the urgent nature of the request. Several recent Search and Rescue operations in the region were critically hampered by the inability to communicate between emergency workers and volunteers.

Radio coverage tends to be provided along Interstate Highways and state roads, with little attention given to the "back country". Unfortunately for Kane County, "back country" is most of what they have. Note on the map that Highway 89 skirts the far west and south borders of the county. The Pink Cliffs site will help fill in one of the largest remaining holes of public safety radio coverage in the state.

Due to the limited time line that Homeland Defense funding will be available for this project, we requested that the Forest Service move expeditiously to grant at least a temporary permit so facilities could be purchased and

communications established. The last word we were given was that the process for the *temporary* permit may not be able to start until October, the permanent lease could take years, and the Environmental Impact Assessment would run around \$20,000. We're hoping the Forest Service will be able to shorten the period of time -at least for the temporary permit. because the site will be completely inaccessible when the snow falls.



Pink Cliffs Proposed Communications Site

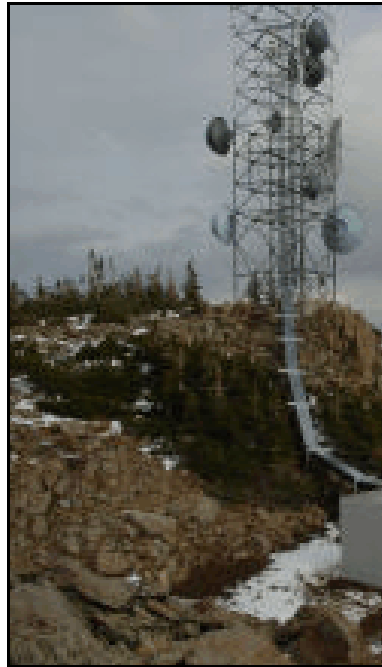
July U.C.A.N. Meeting Highlights

By [Doug Chandler](#)

The July meeting of the [Utah Communications Agency Network](#) was held at the Valley Emergency Communications Center (VECC) on Tuesday the 19th. The meeting was probably the least attended that I've seen yet. Summer months tend to be everyone's busy time; for that reason no August meeting is scheduled.

CLAYTON PEAK

Probably the most interesting part of the meeting (at least for me) was the damage that was reported to the Clayton Peak waveguide/coax bridge. The bridge protects as it hangs the antenna cables between the building and tower. Owing to the unusually long distance of this particular bridge, heavy-duty steel was used in its construction. The furious winter forces that impact mountaintop communications sites are evidenced in the inset photo to the right.



Clayton Peak Communications Site (pre-damage)

ECHO SITE

UCAN awarded a contract to Christensen and Griffith for the construction of the proposed site in ECHO Canyon. Construction is scheduled to start August 1.

PERSONNEL

Two of UCAN's technicians will soon be leaving. The UCAN Board approved the filling of one radio tech position, and the reclassification of the second as a 'site technician', for generator maintenance etc. There is yet another unfilled radio tech position that the Board gave permission to fill quite some time ago (should the need arise). The Board also approved a 2.5% COLA increase.

BUDGET

Some very preliminary budget figures were passed out. The net operating incomes for FY-2006 and FY-2007 are predicted to be \$3,690 and (\$17,239) respectively. The growth of the reserve funds is another issue. A certain percentage of user fee revenue is set aside for contingencies. If we fund those directly, the books tip into the red to the tune of (\$130K) and (\$150K) for fiscal 05 and 06. The other option is to fund the contingencies via depreciation costs, which are basically just a paper loss in the expense column. These and many other issues will be discussed in the August 30th Budget Subcommittee meeting.

OTHER

A Disaster Recovery Plan was approved. A Nomination Subcommittee was formed to accept nominations for the four 2-year positions that are up for consideration: Weber, Summit, Utah, and 'At-Large'.

Calendar

UCAN Meeting

Tuesday September 20, 2005
2:00 p.m. - 4:00 p.m.
Location: VECC
5360 South 5885 West
Salt Lake City

911 Committee

Thursday July 21, 2005
10:00am - Noon
Rampton Complex
4501 South 2700 West
UHP Large Conference Room

Utah Sheriff's Association 10th Annual Conference and Exposition

St. George Dixie Center
September 11-13
[Conference Link](#)

Editor

Doug Chandler, ITS Wireless Services
(801) 965-4538
dchandler@utah.gov